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Contribution to the knowledge of the light trap collected Heteroptera fauna occurring in cherry orchards in western Turkey

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A b s t r a c t : This study deals with Heteroptera fauna collected by light traps in cherry orchards in western Turkey during the years of 2006-2007. A total of 35 species belonging to eight families of Heteroptera were determined. Among those *Adelphocoris lineolatus* (GOEZE 1778), *Exolygus pratensis* (LINNAEUS 1758), *Phytocoris insignis* REUTER 1876, *Nezara viridula* (LINNAEUS 1758), *Nysius helveticus* (HERRICH & SCHAEFFER 1850) and *Paromius gracilis* (RAMBUR 1839) were found as the most abundant species.

K e y w o r d s : Heteroptera, Light trap, Fauna, Turkey.

Introduction

Light traps have great importance in faunistic studies. The number of studies conducted by this method is very limited in Turkey (HOBERLANDT 1961; ONDER & ADIGUZEL 1979; ONDER et al. 1981, 1984; YILDIRIM et al. 1999). It was reported a total of 37, 87, 155, 128, 52 species belonging to 4, 13, 15, 12, 5 families of Heteroptera in these studies, respectively.

There was not any study conducted in cherry orchards by using light traps in Turkey. This study was realized in order to fullfil this gap at cherry orchards in Izmir (Kemalpasa), western Turkey during the years of 2006-2007. Studies were conducted in four orchards in size of about 0,5 hectare for each. One light trap on the ground was used for each area from the mid June to the mid September. A 20 watt Philips energy saver white day light bulb was used at each trap and traps were cleared at two weeks' intervals. Material were identified by the third author. The material is deposited both in the Lodos Entomological Museum, Turkey (LEMT) of Plant Protection Department of Ege University, Izmir, Turkey and in the museum of Biology Department, Trakya University, Edirne, Turkey.

Result

In this study 35 species belonging to the families of Reduviidae (2 spp.), Tingidae (1

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sp.), Nabidae (2 spp.), Miridae (8 spp.), Cydnidae (2 spp.), Pentatomidae (8 spp.), Lygaeidae (10 spp.) and Coreidae (2 spp.) were recorded, respectively. Information on 35 species belonging to eight families of Heteroptera were given below.

Family Reduviidae Latreille 1807

Peirates hybridus (Scopoli 1763)

Material examined: 14.VII.2006, 2 exs., 27.VII.2006, 7 exs., 11.VIII.2006, 3 exs., 24.VIII.2006, 3 exs., 31.VIII.2007, 2 exs. Totally 17 specimens.

Note: Reported from Diyarbakır, Edirne and northwestern part of Anatolia by light traps (Onder & Adiguzel 1979; Onder et al. 1981, 1984). First record for Izmir province of Turkey.

Reduvius pallipes Klug 1830

Material examined: 28.VI.2006, 2 exs., 14.VII.2006, 1 ex., 24.VIII.2006, 1 ex. Totally 4 specimens.

Note: Reported from Diyarbakır by light traps (Onder & Adiguzel 1979).

Family Tingidae Laporte 1832

Stephanitis pyri (Fabricius 1775)

Material examined: 24.VIII.2006, 2 exs., 08.IX.2006, 1 ex. Totally 3 specimens.

Note: Reported from Diyarbakır by light traps (Onder & Adiguzel 1979).

Family Nabidae Costa 1852

Nabis capsiformis Germar 1838

Material examined: 27.VII.2006, 2 exs., 11.VIII.2006, 9 exs., 24.VIII.2006, 7 exs., 08.IX.2006, 3 exs. Totally 21 specimens.

Nabis pseudoferus Remane 1949

Material examined: 14.VII.2006, 4 exs., 27.VII.2006, 2 exs., 11.VIII.2006, 3 exs., 24.VIII.2006, 9 exs., 08.IX.2006, 5 exs., 14.VIII.2007, 1 ex., 31.VIII.2007, 2 exs. Totally 26 specimens.

Note: Reported from Diyarbakır, Edirne and northwestern part of Anatolia by light traps (Onder & Adiguzel 1979; Onder et al. 1981, 1984).

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Family M i r i d a e HAHN 1831

Adelphocoris lineolatus (GOEZE 1778)

M a t e r i a l e x a m i n e d : 28.VI.2006, 2 exs., 14.VII.2006, 8 exs., 27.VII.2006, 59 exs., 11.VIII.2006, 27 exs., 24.VIII.2006, 16 exs., 08.IX.2006, 12 exs., 14.VIII.2007, 2 exs., 31.VIII.2007, 26 exs. Totally 152 specimens.

N o t e : Reported from Ankara, Edirne, Erzurum and northwestern part of Anatolia by light traps (HOBERLANDT 1961; ONDER et al. 1981, 1984; YILDIRIM et al. 1999).

Charagochilus gyllenhalii (FALLÉN 1807)

M a t e r i a l e x a m i n e d : 27.VII.2006, 1 ex. Totally 1 specimen.

N o t e : Reported from Edirne, Erzurum and northwestern part of Anatolia by light traps (ONDER et al. 1981, 1984; YILDIRIM et al. 1999).

Deraeocoris pallens pallens (REUTER 1904)

M a t e r i a l e x a m i n e d : 11.VIII.2006, 1 ex., 24.VIII.2006, 1 ex., 08.IX.2006, 1 ex. Totally 3 specimens.

N o t e : Reported from Diyarbakır by light traps (ONDER & ADIGUZEL 1979). First record for Izmir province of Turkey.

Deraeocoris serenus (DOUGLAS & SCOTT 1868)

M a t e r i a l e x a m i n e d : 28.VI.2006, 1 ex., 14.VII.2006, 1 ex., 27.VII.2006, 6 exs., 11.VIII.2006, 3 exs., 24.VIII.2006, 3 exs., 08.IX.2006, 4 exs., 14.VIII.2007, 1 ex., 31.VIII.2007, 1 ex. Totally 20 specimens.

N o t e : Reported from Diyarbakır, Edirne, Erzurum and northwestern part of Anatolia by light traps (ONDER & ADIGUZEL 1979; ONDER et al. 1981, 1984; YILDIRIM et al. 1999).

Exolygus pratensis (LINNAEUS 1758)

M a t e r i a l e x a m i n e d : 28.VI.2006, 1 ex., 27.VII.2006, 13 exs., 11.VIII.2006, 19 exs., 24.VIII.2006, 9 exs., 08.IX.2006, 12 exs., 31.VIII.2007, 3 exs. Totally 57 specimens.

N o t e : Reported from Diyarbakır, Edirne, Erzurum and northwestern part of Anatolia by light traps (ONDER & ADIGUZEL 1979; ONDER et al. 1981, 1984; YILDIRIM et al. 1999).

Hallodapus suturalis (HERRICH & SCHAEFFER 1837)

M a t e r i a l e x a m i n e d : 11.VIII.2006, 1 ex., 31.VIII.2007, 1 ex. Totally 2 specimens.

N o t e : Reported from Diyarbakır, Edirne, Erzurum and northwestern part of Anatolia by light traps (ONDER & ADIGUZEL 1979; ONDER et al. 1981, 1984; YILDIRIM et al. 1999).

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Phytocoris insignis **REUTER 1876**

M a t e r i a l e x a m i n e d : 27.VII.2006, 16 exs., 11.VIII.2006, 9 exs., 24.VIII.2006, 30 exs., 08.IX.2006, 11 exs. Totally 66 specimens.

N o t e : Reported from Diyarbakır by light traps (ONDER & ADIGUZEL 1979).

Phytocoris pinihalepensis **LINDBERG 1948**

M a t e r i a l e x a m i n e d : 27.VII.2006, 1 ex., 11.VIII.2006, 17 exs., 24.VIII.2006, 1 ex., 08.IX.2006, 2 exs. Totally 21 specimens.

N o t e : Reported from Diyarbakır by light traps (ONDER & ADIGUZEL 1979).

Family C y d n i d a e BILLBERG 1820

Geotomus elongatus **(HERRICH & SCHAEFFER 1840)**

M a t e r i a l e x a m i n e d : 08.IX.2006, 1 ex., 14.VIII.2007, 1 ex. Totally 2 specimens.

N o t e : Reported from Diyarbakır by light traps (ONDER & ADIGUZEL 1979).

Macroscytus brunneus **(FABRICIUS 1803)**

M a t e r i a l e x a m i n e d : 11.VIII.2006, 1 ex., 24.VIII.2006, 1 ex., 31.VIII.2007, 4 exs. Totally 6 specimens.

N o t e : Reported from Diyarbakır and northwestern part of Anatolia by light traps (ONDER & ADIGUZEL 1979; ONDER et al. 1981). First record for Izmir province of Turkey.

Family P e n t a t o m i d a e LEACH 1815

Acrosternum heegeri **FIEBER 1861**

M a t e r i a l e x a m i n e d : 14.VII.2006, 2 exs., 24.VIII.2006, 2 exs., 14.VIII.2007, 1 ex., 31.VIII.2007, 2 exs. Totally 7 specimens.

N o t e : Reported from Diyarbakır and northwestern part of Anatolia by light traps (ONDER & ADIGUZEL 1979; ONDER et al. 1981).

Acrosternum millierei **(MULSANT & REY 1866)**

M a t e r i a l e x a m i n e d : 14.VII.2006, 2 exs., 24.VIII.2006, 2 exs., 31.VIII.2007, 4 exs. Totally 8 specimens.

N o t e : Reported from Diyarbakır, Edirne and northwestern part of Anatolia by light traps (ONDER & ADIGUZEL 1979; ONDER et al. 1981, 1984).

Apodiphus amygdali **(GERMAR 1817)**

M a t e r i a l e x a m i n e d : 14.VII.2006, 1 ex., 27.VII.2006, 1 ex., 24.VIII.2006, 4 exs., 31.VIII.2007, 4 exs., 08.IX.2007, 1 ex. Totally 11 specimens.

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N o t e : Reported from Diyarbakır by light traps (ONDER & ADIGUZEL 1979).

Dolycoris baccarum **(LINNAEUS 1758)**

M a t e r i a l e x a m i n e d : 14.VII.2006, 2 exs., 27.VII.2006, 3 exs., 24.VIII.2006, 1 ex., 14.VIII.2007, 1 ex. Totally 7 specimens.

N o t e : Reported from northwestern part of Anatolia by light traps (ONDER et al. 1981).

Eysarcoris ventralis **(WESTWOOD 1837)**

M a t e r i a l e x a m i n e d : 28.VI.2006, 1 ex., 14.VII.2006, 1 ex., 11.VIII.2006, 1 ex., 08.IX.2006, 1 ex. Totally 4 specimens.

N o t e : Reported from Diyarbakır, Edirne and northwestern part of Anatolia by light traps (ONDER & ADIGUZEL 1979; ONDER et al. 1981, 1984).

Holcostethus strictus strictus **(FABRICIUS 1803)**

M a t e r i a l e x a m i n e d : 14.VII.2006, 2 exs., 08.IX.2006, 1 ex. Totally 3 specimens.

N o t e : First record for Izmir province of Turkey.

Nezara viridula **(LINNAEUS 1758)**

M a t e r i a l e x a m i n e d : 14.VII.2006, 30 exs., 27.VII.2006, 17 exs., 24.VIII.2006, 80 exs., 14.VIII.2007, 1 ex., 31.VIII.2007, 8 exs. Totally 136 specimens.

N o t e : Reported from northwestern part of Anatolia by light traps (ONDER et al. 1981).

Rhaphigaster nebulosa **(PODA 1761)**

M a t e r i a l e x a m i n e d : 27.VII.2006, 1 ex. Totally 1 specimen.

N o t e : Reported from northwestern part of Anatolia by light traps (ONDER et al. 1981).

Family L y g a e i d a e SCHILLING 1829

Beosus quadripunctatus **(MÜLLER 1766)**

M a t e r i a l e x a m i n e d : 27.VII.2006, 1 ex., 11.VIII.2006, 2 exs., 24.VIII.2006, 1 ex. Totally 4 specimens.

N o t e : Reported from Diyarbakır and Edirne by light traps (ONDER & ADIGUZEL 1979; ONDER et al. 1984).

Eremocoris fenestratus **(HERRICH & SCHAEFFER 1839)**

M a t e r i a l e x a m i n e d : 24.VIII.2006, 1 ex. Totally 1 specimen.

Graptostethus servus **(FABRICIUS 1787)**

M a t e r i a l e x a m i n e d : 24.VIII.2006, 1 ex. Totally 1 specimen.

N o t e : First record for Izmir province of Turkey.

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***Icus angularis* FIEBER 1861**

M a t e r i a l e x a m i n e d : 14.VIII.2007, 1 ex. Totally 1 specimen.

N o t e : First record for Izmir province of Turkey.

***Lamprodema maura* (FABRICIUS 1803)**

M a t e r i a l e x a m i n e d : 28.VII.2007, 1 ex. Totally 1 specimen.

N o t e : Reported from Diyarbakır, Edirne and northwestern part of Anatolia by light traps (ONDER & ADIGUZEL 1979; ONDER et al. 1981, 1984).

***Nysius graminicola graminicola* (KOLENATI 1845)**

M a t e r i a l e x a m i n e d : 14.VIII.2007, 1 ex., 31.VIII.2007, 13 exs. Totally 14 specimens.

N o t e : Reported from Diyarbakır, Edirne, Erzurum and northwestern part of Anatolia by light traps (ONDER & ADIGUZEL 1979; ONDER et al. 1981, 1984; YILDIRIM et al. 1999).

***Nysius helveticus* (HERRICH & SCHAEFFER 1850)**

M a t e r i a l e x a m i n e d : 11.VIII.2006, 2 exs., 24.VIII.2006, 2 exs., 14.VIII.2007, 5 exs., 31.VIII.2007, 69 exs. Totally 78 specimens.

N o t e : Reported from Diyarbakır, Edirne, Erzurum and northwestern part of Anatolia by light traps (ONDER & ADIGUZEL 1979; ONDER et al. 1981, 1984; YILDIRIM et al. 1999). First record for Izmir province of Turkey.

***Paromius gracilis* (RAMBUR 1839)**

M a t e r i a l e x a m i n e d : 27.VII.2006, 9 exs., 11.VIII.2006, 25 exs., 24.VIII.2006, 19 exs., 08.IX.2006, 15 exs., 31.VIII.2007, 3 exs. Totally 71 specimens.

***Remaudiereana annulipes* (BARENSPRUNG 1859)**

M a t e r i a l e x a m i n e d : 31.VIII.2007, 1 ex. Totally 1 specimen.

N o t e : Reported from northwestern part of Anatolia by light traps (ONDER et al., 1981). First record for Izmir province of Turkey.

***Scolopostethus pictus* (SCHILLING 1829)**

M a t e r i a l e x a m i n e d : 11.VIII.2006, 1 ex., 14.VIII.2007, 1 ex. Totally 2 specimens.

N o t e : First record for Izmir province of Turkey.

Family C o r e i d a e LEACH 1815

***Centrocoris variegatus* KOLENATI 1845**

M a t e r i a l e x a m i n e d : 27.VII.2006, 2 exs., 31.VIII.2007, 1 ex. Totally 3 specimens.

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***Coreus marginatus marginatus* (LINNAEUS 1758)**

Material examined: 11.VIII.2006, 1 ex., 08.IX.2006, 2 exs. Totally 3 specimens.

Zusammenfassung

Vorliegende Studie widmet sich der Wanzenfauna von Kirschbaumkulturen im Westen der Türkei, gesammelt an Lichtfallen im Zeitraum 2006 bis 2007. Insgesamt konnten 35 Arten aus 8 Familien festgestellt werden, zu den häufigsten Arten darunter zählten *Adelphocoris lineolatus* (GOEZE 1778), *Exolygus pratensis* (LINNAEUS 1758), *Phytocoris insignis* REUTER 1876, *Nezara viridula* (LINNAEUS 1758), *Nysius helveticus* (HERRICH & SCHAEFFER 1850) und *Paromius gracilis* (RAMBUR 1839).

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